

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. APPLICATION NO. 10/049,868 06/04/2002 Hans Deckmyn 522-1778 2345 **EXAMINER** 21559 7590 12/30/2005 **CLARK & ELBING LLP** HADDAD, MAHER M 101 FEDERAL STREET PAPER NUMBER **ART UNIT** BOSTON, MA 02110 1644

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief

| Application No. | Applicant(s) | | |
|-----------------|----------------|--|--|
| 10/049,868 | DECKMYN ET AL. | | |
| Examiner | Art Unit | | |
| Maher M. Haddad | 1644 | | |

| | Maher M. Haddad | 1644 | | |
|--|---|--|--|--|
| The MAILING DATE of this communication appe | ars on the cover sheet with the | correspondence add | ress | |
| THE REPLY FILED 01 December 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. | | | | |
| The reply was filed after a final rejection, but prior to or or this application, applicant must timely file one of the follow places the application in condition for allowance; (2) a Notal Request for Continued Examination (RCE) in compliant time periods: | n the same day as filing a Notice of wing replies: (1) an amendment, af otice of Appeal (with appeal fee) in | Appeal. To avoid aba fidavit, or other evider compliance with 37 C | nce, which FR 41.31; or (3) | |
| a) The period for reply expiresmonths from the mailing | | | | |
| b) The period for reply expires on: (1) the mailing date of this A no event, however, will the statutory period for reply expire Examiner Note: If box 1 is checked, check either box (a) or | later than SIX MONTHS from the mailing | ng date of the final rejecti | ion. | |
| TWO MONTHS OF THE FINAL REJECTION. See MPEP 7 | 06.07(f). | | İ | |
| Extensions of time may be obtained under 37 CFR 1.136(a). The date have been filed is the date for purposes of determining the period of ex under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the set forth in (b) above, if checked. Any reply received by the Office late may reduce any earned patent term adjustment. See 37 CFR 1.704(b) NOTICE OF APPEAL | tension and the corresponding amount shortened statutory period for reply orig r than three months after the mailing da | of the fee. The appropr ginally set in the final Offi | iate extension fee ce action; or (2) as | |
| 2. The Notice of Appeal was filed on <u>01 December 2005</u> . A of the date of filing the Notice of Appeal (37 CFR 41.37(a appeal. Since a Notice of Appeal has been filed, any repl AMENDMENTS |)), or any extension thereof (37 CF | R 41.37(e)), to avoid | dismissal of the | |
| 3. The proposed amendment(s) filed after a final rejection, | but prior to the date of filing a brief | · · will not be entered b | ecause | |
| (a) They raise new issues that would require further co | | | | |
| (b) They raise the issue of new matter (see NOTE below | • | ,, | | |
| (c) They are not deemed to place the application in be appeal; and/or | | | the issues for | |
| (d) They present additional claims without canceling a | | jected claims. | | |
| NOTE: (See 37 CFR 1.116 and 41.33(a)). | | | | |
| 4. The amendments are not in compliance with 37 CFR 1.1 | | ompliant Amendment (| (PTOL-324). | |
| 5. Applicant's reply has overcome the following rejection(s) 6. Newly proposed or amended claim(s) would be a | · · · · · · · · · · · · · · · · · · · | timely filed amendme | ent canceling the | |
| non-allowable claim(s). 7. For purposes of appeal, the proposed amendment(s): a) | ☐ will not be entered, or b) ☒ wi | ill he entered and an e | explanation of | |
| how the new or amended claims would be rejected is pro The status of the claim(s) is (or will be) as follows: Claim(s) allowed: 71,75,80 and 81. | | | sopialiation of | |
| Claim(s) objected to: <u>None</u> . Claim(s) rejected: <u>65,66,70,72-74,82 and 83</u> . Claim(s) withdrawn from consideration: <u>None</u> . | | | | |
| AFFIDAVIT OR OTHER EVIDENCE | | | | |
| The affidavit or other evidence filed after a final action, bu because applicant failed to provide a showing of good an was not earlier presented. See 37 CFR 1.116(e). | | | | |
| The affidavit or other evidence filed after the date of filing entered because the affidavit or other evidence failed to showing a good and sufficient reasons why it is necessar | overcome <u>all</u> rejections under appe | al and/or appellant fai | Is to provide a | |
| 10. ☑ The affidavit or other evidence is entered. An explanation REQUEST FOR RECONSIDERATION/OTHER | | Term of Di | eposit, Dated elifes | |
| The request for reconsideration has been considered bu See Continuation Sheet. | it does NOT place the application i | n condition for allowar | nce because: | |
| 12. Note the attached Information Disclosure Statement(s). | (PTO/SB/08 or PTO-1449) Paper I | No(s) | | |
| 13. Other: | | | | |
| | | | | |

Continuation of 11. does NOT place the application in condition for allowance because: 1. Claims 70 and 83 stand rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a New Matter rejection.

Applicant's arguments, filed 12/1/05, have been fully considered, but have not been found convincing.

The specification does not explicitly discloes that the "homolog", the "ligand" and the "CDR regions" are equivelent. The specification discloses only that homology with reference to ligands which compete with or inhibit binding of one of the ligands. Further, the specification on page 10, lines 24-26 discloses that the homolog of antigen binding fab fragment, the CDR regions are not specifically contemplated.

2. Claims 70, 82 and 83 stand rejected under 35 U.S.C. 112, first paragraph, because the specification while being enabled for a pharmaceutical comprosition comprising a monovalent antibody fragment which binds in vivo to human platelet glycoprotein GPlb without incurring thrombocytopenia and a pharmaceutically acceptable carrier wherein said fragment is an Fab fragment or a single variable domain or a monovalent antibody fragment which binds in vivo to human platelet glycoprotein GPlb, and prevents the binding of von Willebrand factor to human platelet glycoprotein GPlb which is an Fab fragment or a single variable domain, which inhibits platelet adhesion under high shear conditions; does not reasonably provide enablement for a pharmaceutical composition or a monovalent antibody fragment, wherein the variable region of said fragment comprises a sequence having at least 80% sequence identity with SEQ ID NO: 4 within the CDR regions as identified in Figure 13 in claims 70 and 83, a humanized antibody fragment derivable from the monoclonal antibody. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims for the same reasons set forth in the previous Office Action mailed 5/27/05.

Applicant's arguments, filed 12/1/05, have been fully considered, but have not been found convincing:

The skilled artian would not know whether the "humanized antibody fragment" refers to any antibody fragment or it is limited to fragments containing the antigen-binding domain of the antibody in claim 82.

Applicant does not dispute the teachings of Rudikoff, Panka and Amit but disagrees that those references probide basis to question the enablement of Applicant's specification as evidence of undue experimentation. however, there is tremendous variability in the importance of individual amino acids in protein sequences. Since the CDR region is a key determinants of binding specificity to human platelet glycoprotein GPIb, residue substitutions that are conservative (e.g., Glu in equilibrium Asp, Asn in equilibrium Asp, Ile in equilibrium Leu, Lys in equilibrium Arg and Ala in equilibrium Gly) can have severe phenotypic effects. There is no simple way to infer the likely effect of an amino acid substitution on the basis of sequence information alone. Therefore, one skill in the art would not be able to predicted what residue substituted/deleted/inserted in the CDR regions of the claimed antibody and still provide binding.

The claims fail to meet the enablement requirement for the "how to make and use" prongs of the U.S.C 112, 1st paragraph. The instant fact pattern fails to indicate that a representative number of structurally related antibody fragment molecule is disclosed. The artisan would not know the identity of a reasonable number of representative said fragments falling within the scope of the instant claim and consequently would not have known how to make them. Again, in order to satisfy 112, first paragraph, the specification has to teach how to make and use the antibody fragment of the invention not how to screen to identify the invention.

3. Claims 65-66, 70, 72-74 and 83 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al (1995) (IDS Ref. No. C4), in view of in view of Owens et al (1994) and U.S. Pat. No. 4,731,245 for the same reasons set forth in the previous Office Action mailed 5/27/05.

Applicant's arguments, filed 12/1/05, have been fully considered, but have not been found convincing.

Applicant argues against references individually. However, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference and not is it that the claimed invention must be expressly suggested in any one or all of the references; but rather the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). See MPEP 2145. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., Inc., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). See MPEP 2145.

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600